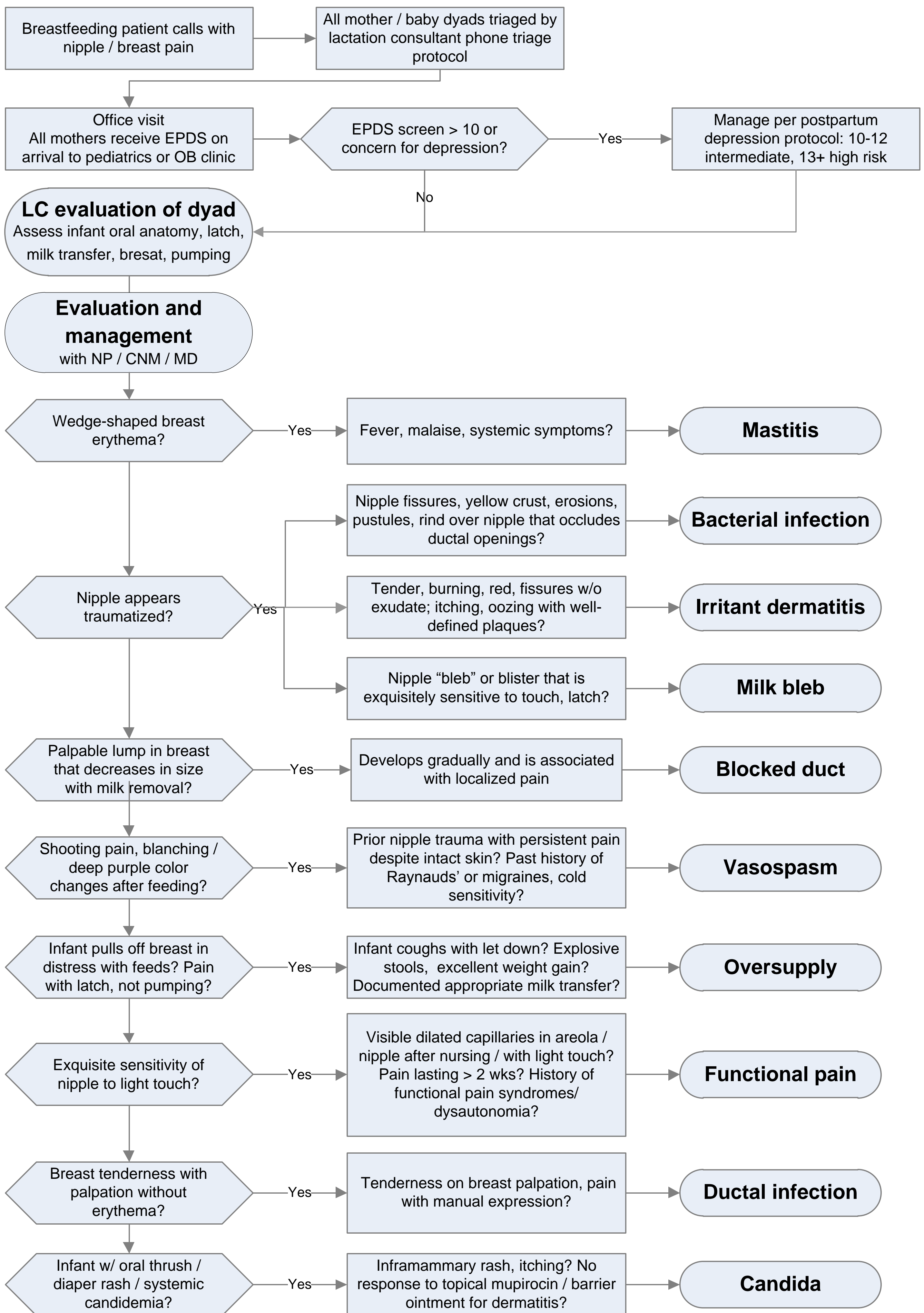

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Mastitis

Breast tenderness w/ reddened, sore area that feels warm.
Flu-like symptoms, generalized body aches, fatigue
Chills or fever ≥101 F orally[1]

Phone call? → See phone triage protocol

Milk sample for aerobic culture for recurrent mastitis, ORSA risk factors, severe symptoms or at clinician discretion.

Penicillin allergy?

- No → Dicloxacillin 500mg PO QID x 10 days
- Yes → Severe?
  - No, rash → Cephelexin 500mg PO QID x 10 days
  - Yes, anaphylaxis → Clindamycin 300-450 mg PO QID x 10 days

Review mastitis supportive care, contact LC on call

Blocked duct?

- Yes → Blocked duct protocol → Mass persists >2 days?
  - Yes → Breast ultrasound – see Abscess protocol
  - No → Improving after 48 hours?
- No → Improving after 48 hours?

Improving after 48 hours?

- Yes → Complete antibiotic course
- No → **SAME DAY E&M Provider Visit** Concern for abscess on physical exam?
  - Yes → Breast ultrasound – see Abscess protocol
  - No → Reconsider diagnosis Review culture results
    - ORSA → Review sensitivities and treat accordingly. Advise mother that she will need to be recultured at the time of any future hospital admission.
    - No cultures done → Collect milk for culture, consider empiric change of antibiotics to clindamycin, or trimethoprim / sulfamethoxazole if infant > 4 wks, for ORSA coverage. → Consider ultrasound → Breast ultrasound – see Abscess protocol
    - Organism sensitive to prescribed antibiotics → Breast ultrasound – see Abscess protocol

Breast ultrasound – see Abscess protocol

Abscess diagnosed → Ultrasound-guided drainage, continue nursing on affected side[2]. Incision and drainage for refractory cases.

Risk factors for ORSA

Recent hospitalization
Residence in a long term care facility
Recent antibiotic therapy
Injection drug use
Hemodialysis
Incarceration
Military service
Sharing needles, razors or other sharp objects
Sharing sports equipment
Health care worker

Supportive Care

"Rest, fluids, empty the breast." No risk to infant continuing breastfeeding during infection, risk to mom with abrupt weaning. Nurse / pump every 2-3 hours. For pain and fever, recommend: Acetaminophen 650-1000 mg q4-6 hours (maximum 4g /day) or Ibuprofen 400-600 mg q6h. Counsel patient that symptoms should improve in 24 to 48 hours. If symptoms progress after 12 hours or persist after 24-48 hours, she should be seen in OB clinic by the appropriate UOG/resident provider, or come to the ER if after hours or weekend for evaluation

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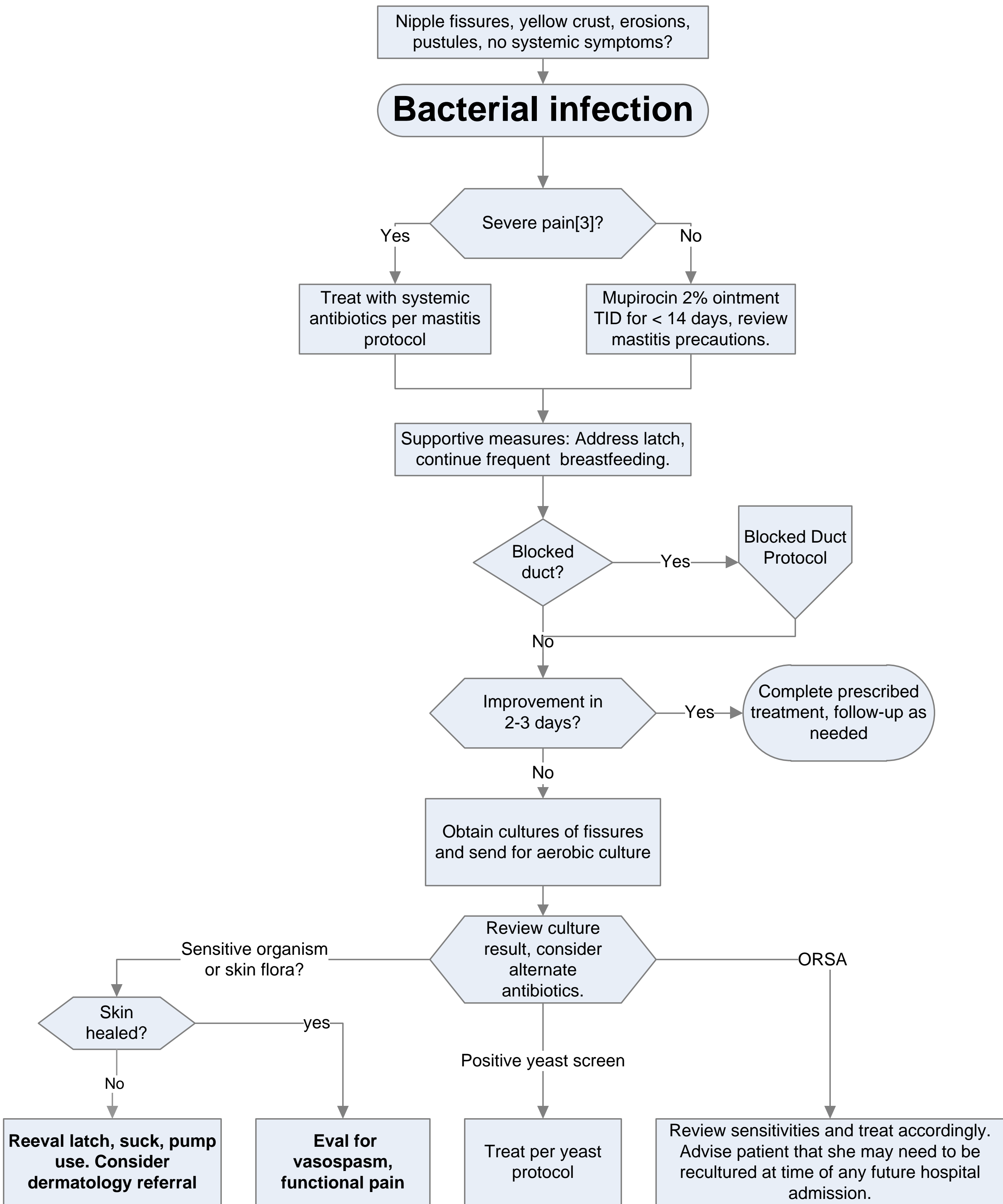

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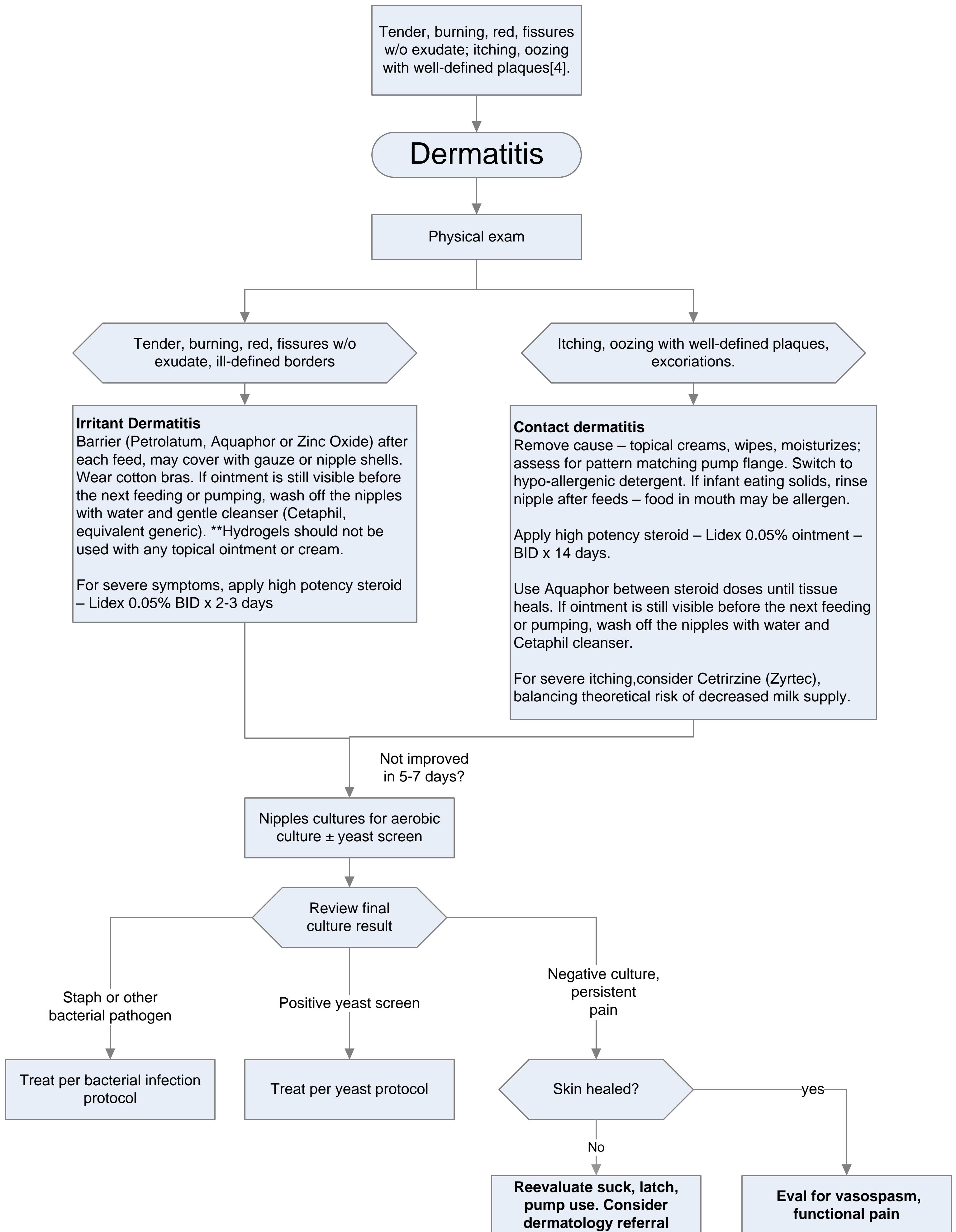

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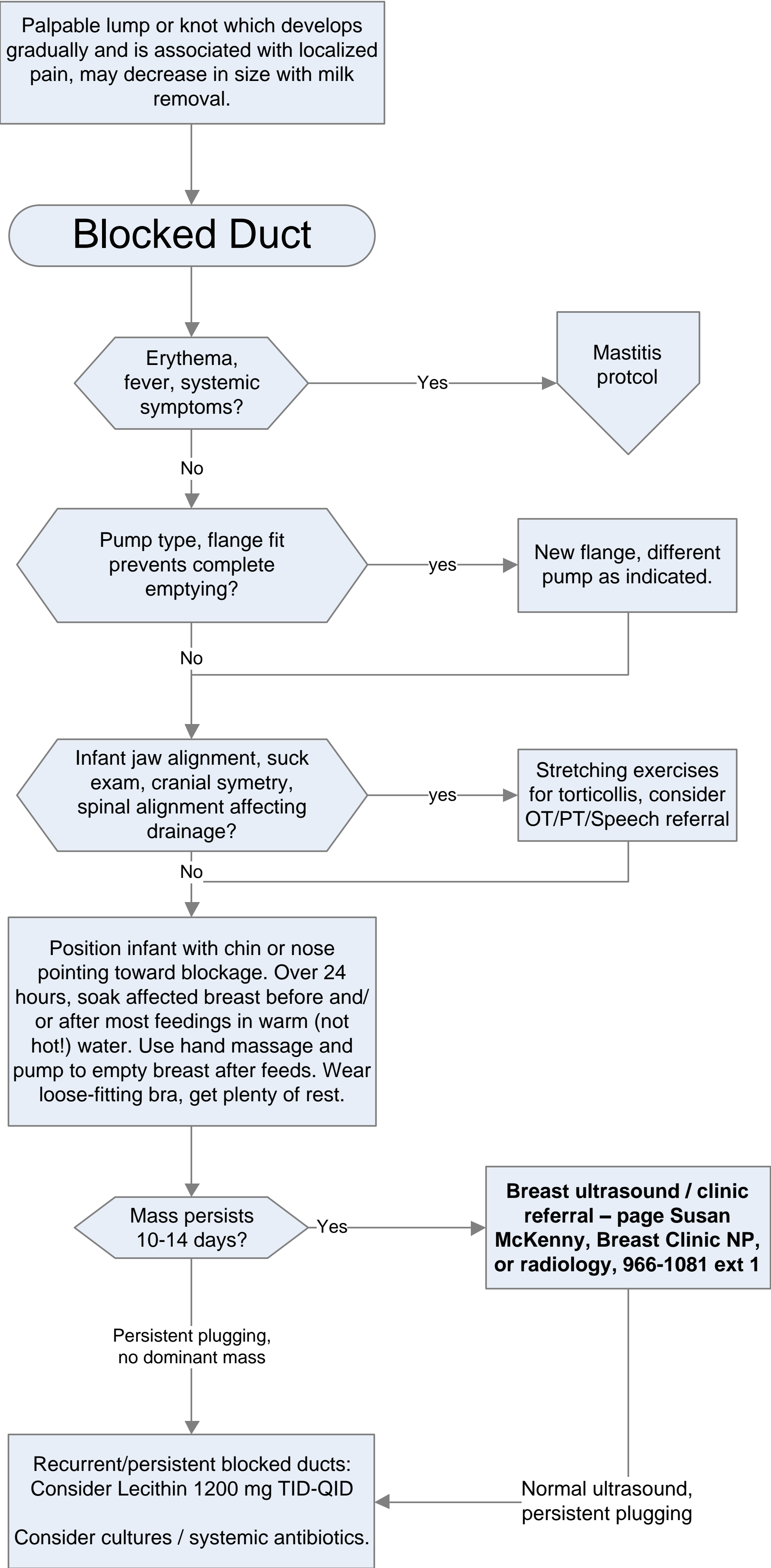

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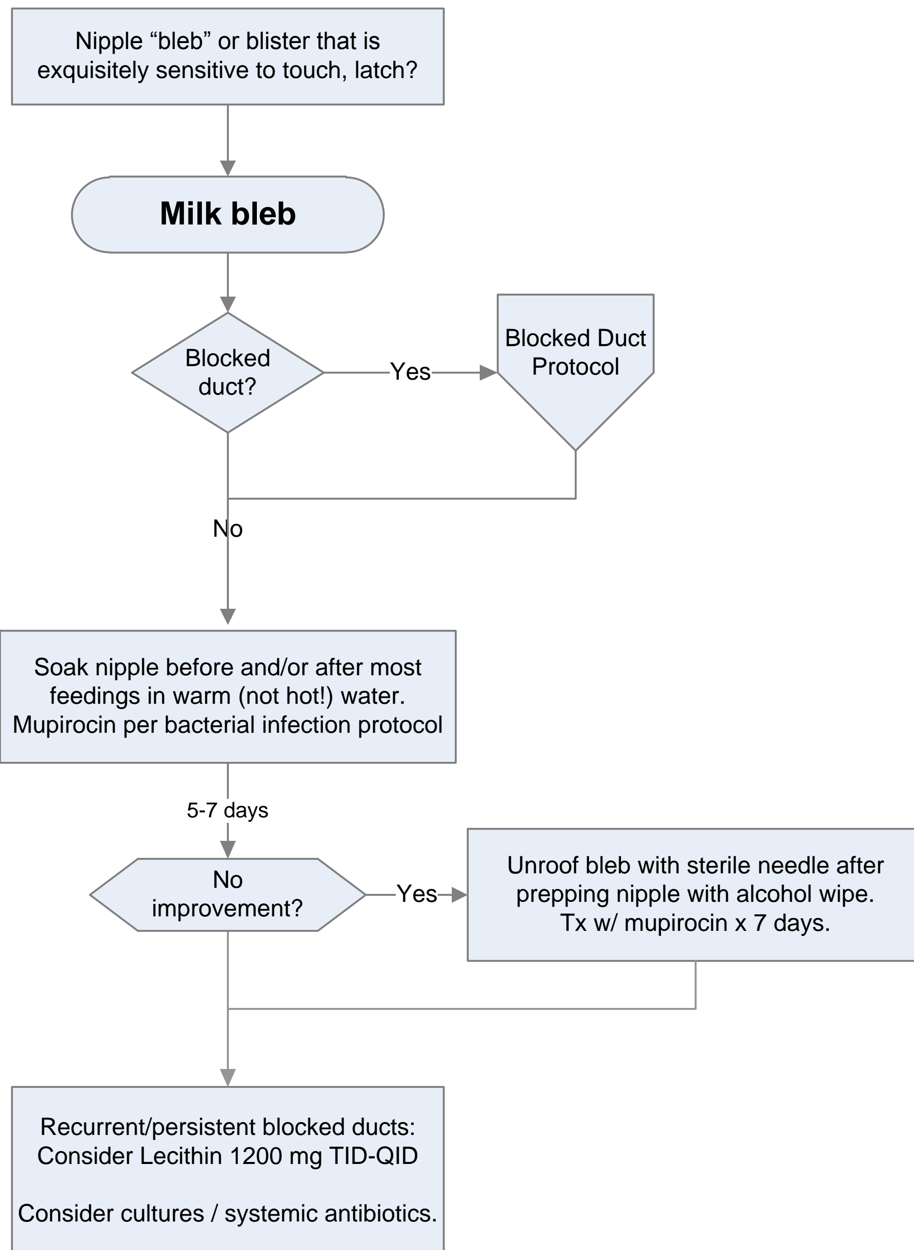

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Shooting pain, blanching / deep purple color changes after feeding? Prior nipple trauma with persistent pain despite intact skin? [5] Past history of Raynauds' or migraines, cold sensitivity?

Vasospasm

Supportive measures:
After each feed / milk expression, cover breasts and apply heating pad on low or warm rice sock for 5 minutes.
Eliminate vasoconstrictive meds (sudafed, caffeine), increase ambient temperature, dress warmly. F/u 7-10 days

Response to supportive measures

- Yes → Continue supportive measures PRN
- Partial → Consider nifedipine 30 XL per day after documenting baseline blood pressure, review orthostatic precautions.
  - Response to treatment?
    - yes → If history of Raynaud's symptoms in hands/ feet, notifiy primary provider / consider workup for Raynaud's associated autoimmune disease
    - No → Reevaluate suck, latch, pump use, consider alternate diagnoses
- No → Reevaluate suck, latch, pump use, consider alternate diagnoses
  - Persistent pain → Functional Pain

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Infant pulls off breast in distress with feeds? Pain with latch, not pumping? Infant coughs with let down? Fussy, colicky baby with reflux, short, frequent feeds, green or mucousy stools, excellent weight gain? Documented appropriate milk transfer? Onset 3-6 wks pp? [6-7]]

Oversupply

Overactive milk letdown?

- Yes → Let down into burp cloth before latching baby

Overproduction?

- Yes → Supportive measures: Reduce pumping, consider alternating sides for feeds, warmth to breast after feeds per vasospasm protocol, ibuprofen 400-600mg q4-6 hours. Follow-up 7-10 days.

Response to supportive measures?

- yes → Continue to alternate breast with feeds, reduce heat / NSAIDs as tolerated.
- Partial → Infant > 3 weeks old?
  - Yes → Consider full drainage and/or scheduled block feeds to decrease supply.
- No → If breast tender with palpation, obtain milk and nipple cultures and send for aerobic culture

Positive culture for single organism?

- Yes → Treat per sensitivities using ductal infection protocol
- No → Reevaluate suck, latch, pump use, consider alternate diagnoses

Full drainage / scheduled block feeds
Using a double electric pump, empty both breasts completely. Feed baby on both sides after drainage. This provides infant slow-flow, fat-rich hind milk.

Following full drainage, block feed by offering infant one breast for all feedings for 3 hours, and then switch to the other breast. Gradually increase the length of the blocks as needed to down-regulate milk production.

Ref: [7] van Veldhuizen-Staas C,. Int Breastfeed J 2007 http://bit.ly/NIOO5w

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Absence of visible trauma to nipple?
Exquisite sensitivity of nipple to light touch?
Onset of severe pain from first latch?
Persistent pain for >2 weeks?
Visible dilated capillaries in areola / nipple after nursing / with light touch? History of functional pain syndromes/dysautonomia?

Functional Pain

Ibuprofen 600-800 mg QID for inflammation.

Counsel re mindfulness, deep breathing, "Suffering = pain x resistance"

Consider massage for trigger-point release.

History of allergies / dermatographia? — Yes → Non-sedating anti-histamine

Improvement? — Yes → Taper ibuprofen as tolerated.

No ↓

Propranolol 20 mg TID for centrally mediated pain syndrome[8], maximum dose 240mg/QD

Tricyclic antidepressant – Nortriptyline 25-50 PO QHS, titrate up q2-3 days, maximum dose 150mg/day. Taper gradually to discontinue

SNRI – Duloxetine (Cymbalta) – start 30 mg PO QD x 1 week, increase to 60 mg QD

Persistent symptoms? ↓

Referral to chronic pain specialist or acupuncture provider.

UNC resources: Referral to Denniz Zolnoun for pain mapping eval or Ken Morehead for trial of acupuncture for refractory nipple / breast pain.

Functional dysautonomia / Centrally mediated pain syndromes [9,10]

Non-painful

- Syncope
- Postural Tachycardia Syndrome (POTS)
- Chronic Fatigue Syndrome
- Cyclic Vomiting Syndrome

Painful

- Functional Dyspepsia
- Functional Abdominal Pain
- Abdominal Migraine
- Migraine Headache
- Irritable Bowel Syndrome (IBS)
- Interstitial Cystitis
- Complex Regional Pain Syndrome (CRPS)
- Raynaud's Syndrome
- Fibromyalgia
- Myofascial Pelvic Pain

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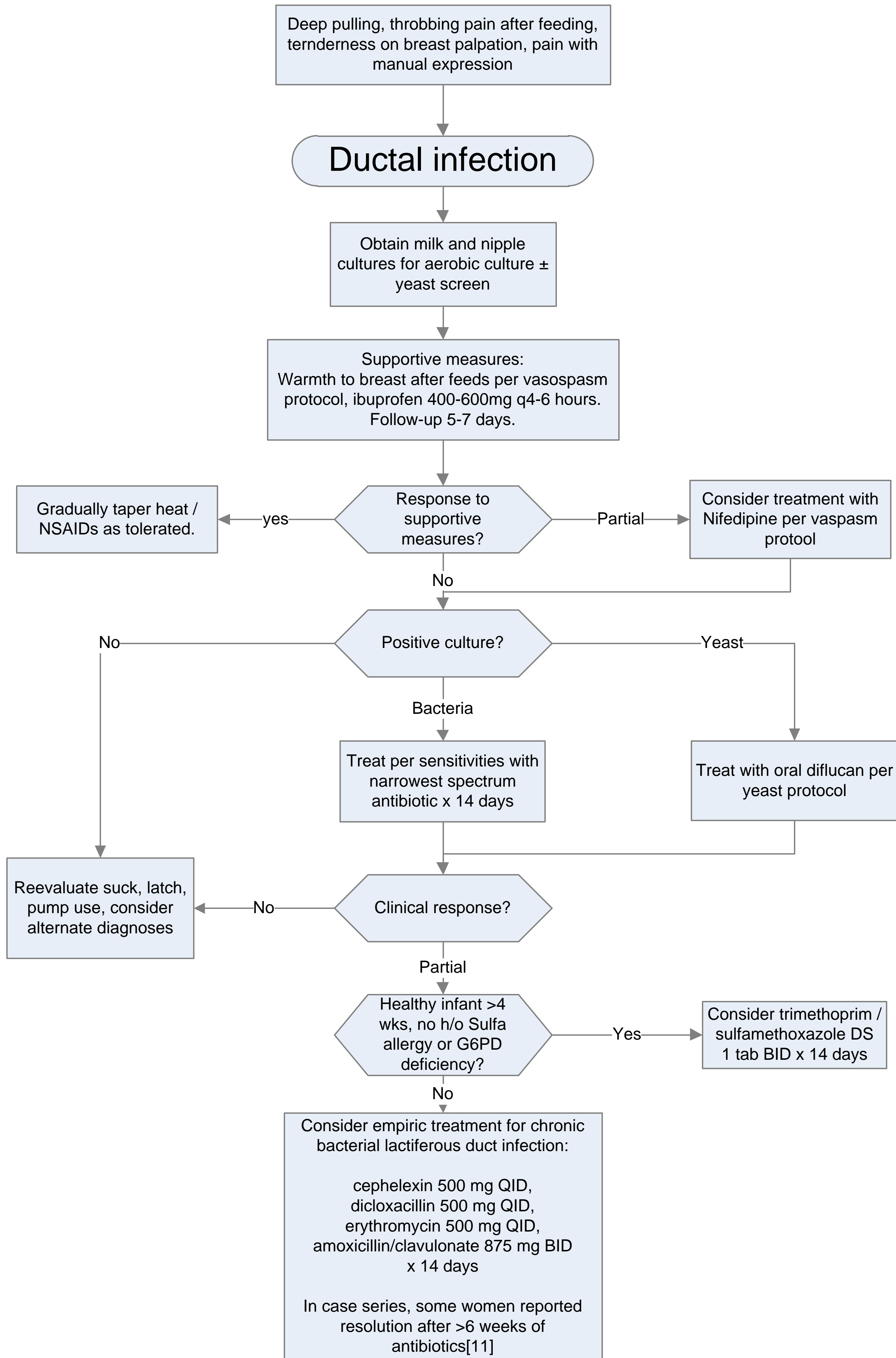

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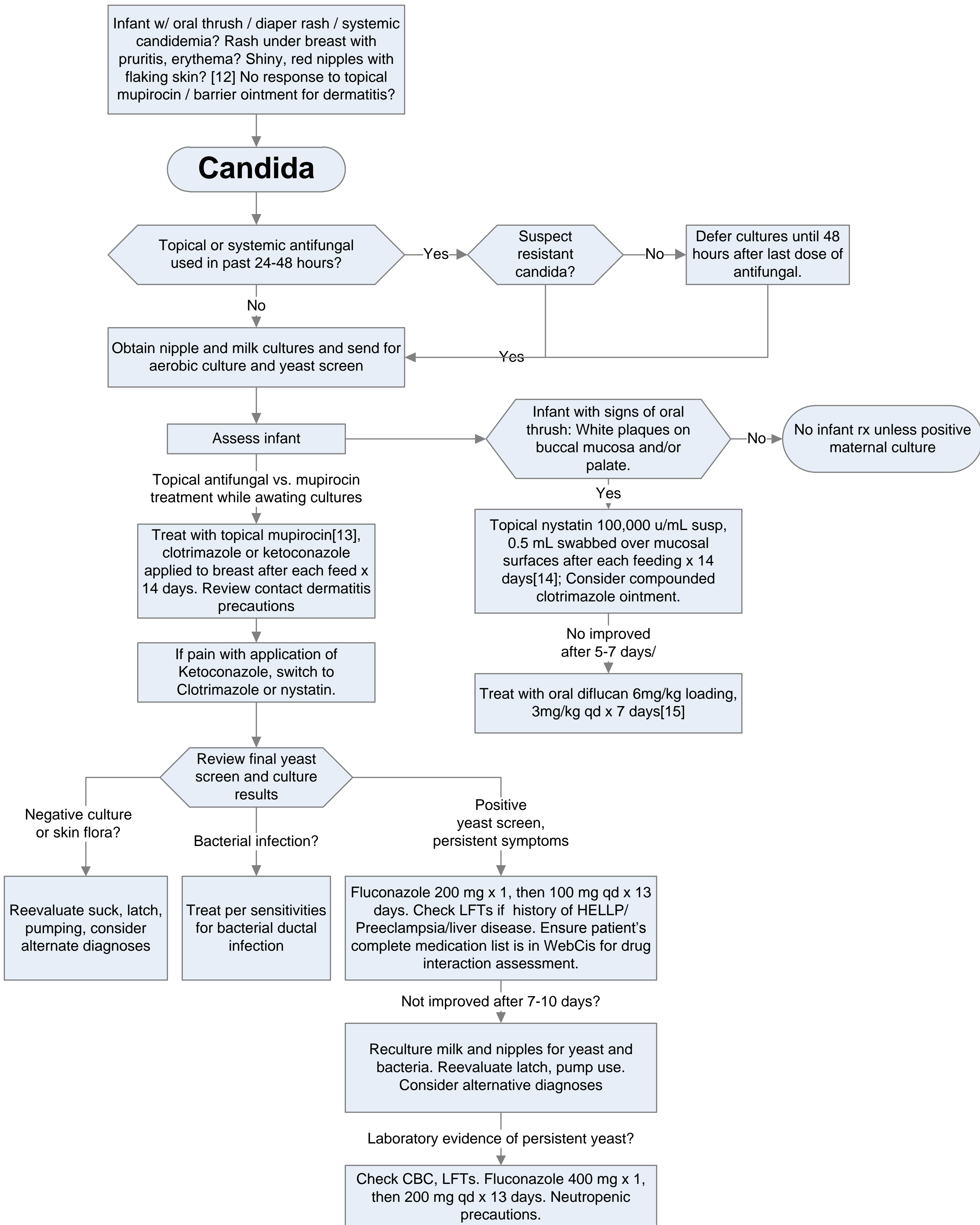

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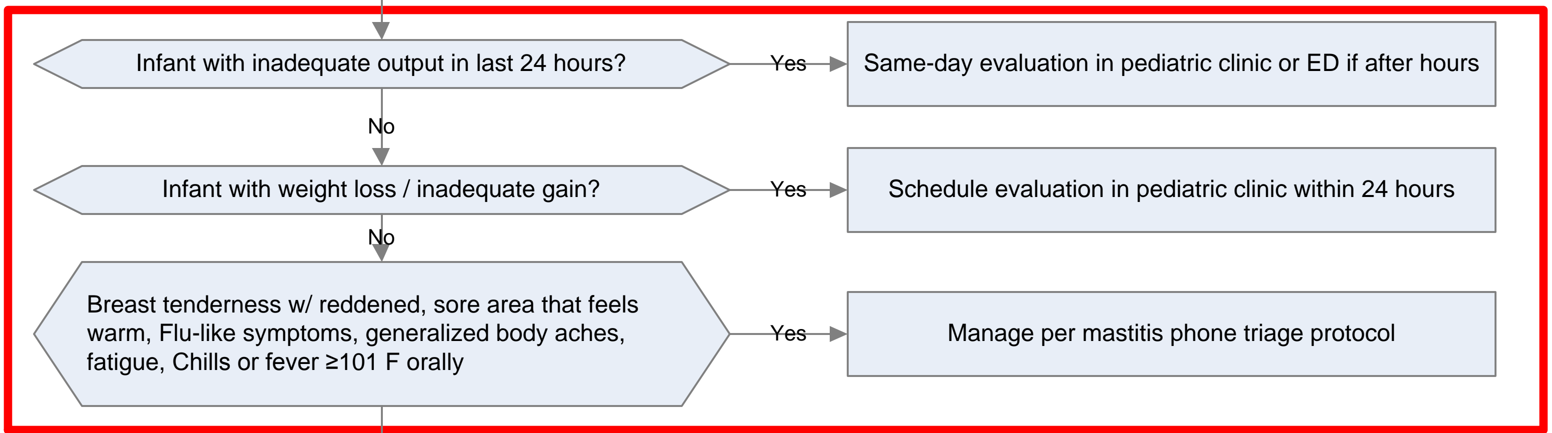
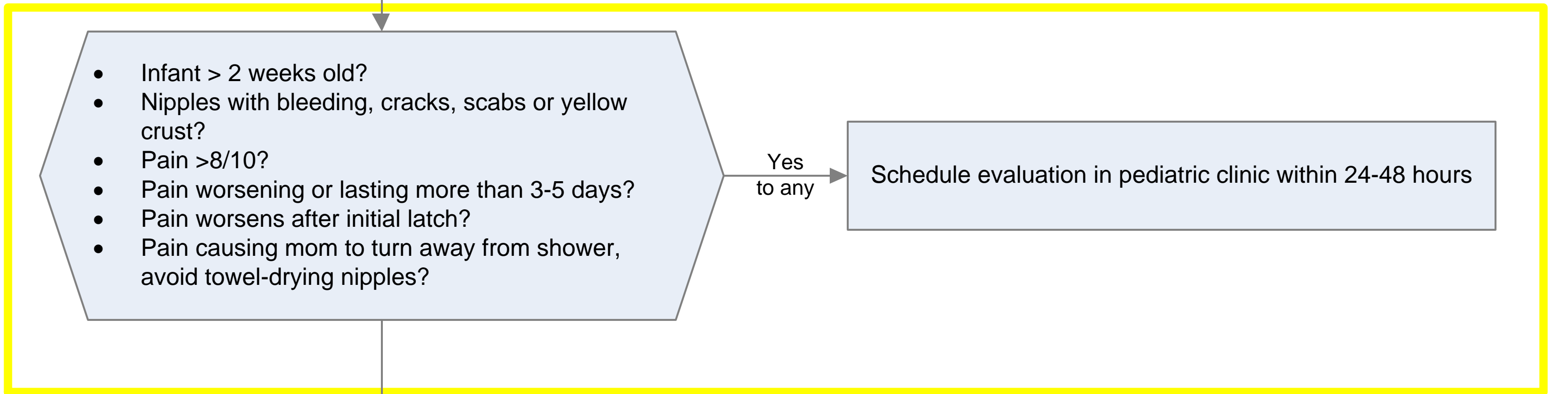
LC Phone Triage: Pain



No



No

Dyad candidate for trial of supportive care measures

Palpable lump or knot which develops gradually and is associated with localized pain, may decrease in size with milk removal. White plug at the ductal opening.

Yes → Position infant with chin or nose pointing toward blockage. Over 24 hours, soak nipple before and/or after most feedings in warm (not hot!) water; use hand massage and pump to empty breast after feeds.

Infant with pediatric-provider-diagnosed oral candida or candidal diaper rash?

Yes → Lotrimin AF to nipples after every feeding

Using Lanolin or other OTC nipple cream or ointment without any relief?

Yes → Discontinue OTC creams / ointments

Upright football hold. Apply heating pad x 5 minutes, followed by Aquaphor / vaseline to nipples, after each feed.

Pain not markedly improved in 48-72 hours?

→ Call Warmline to schedule evaluation in pediatric clinic within 24-48 hours

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